

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 12 JUL 2005

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| Applicant's or agent's file reference P03820DP | FOR FURTHER ACTION | | See Form PCT/IPEA/416 |
| International application No. PCT/KR2004/000744 | International filing date(day/month/year) 31 MARCH 2004 (31.03.2004) | Priority date (day/month/year) 02 APRIL 2003 (02.04.2003) | |
| International Patent Classification (IPC) or national classification and IPC IPC7 H04Q 7/38 | | | |
| Applicant SK TELECOM CO., LTD et al | | | |

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability



☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

| | |
|---|--|
| Date of submission of the demand 01 NOVEMBER 2004 (01.11.2004) | Date of completion of this report 16 JUNE 2005 (16.06.2005) |
| Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140 | Authorized officer OH, Je Uk Telephone No. 82-42-481-8222  |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/000744

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/000744

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|-----------|-----|
| Novelty (N) | Claims | 1-10 | YES |
| | Claims | NONE | NO |
| Inventive step (IS) | Claims | 2-5, 8-10 | YES |
| | Claims | 1,6,7 | NO |
| Industrial applicability (IA) | Claims | 1-10 | YES |
| | Claims | NONE | NO |

2. Citations and explanations (Rule 70.7)

1. Reference is made to the following documents:

D1 : EP 1286317 A2

D2 : WO 02/087149 A1

D3 : EP 1271885 A2

2. Novelty (N)

The subject matter of Claims 1-10 is novel under Article 33(1) and (2).

3. Inventive Steps (IS)

Claims 1-10 relate to a method and apparatus for wireless user authentication using infrared communication of a mobile terminal in which electronic signature data stored in the mobile terminal is provided to an automated transaction system in a wireless manner so that the user may be identified. In claims 1,6, the system comprises a mobile terminal, an automated information providing means, and a certification providing means. In claim 7, the method comprises the steps of requesting the service, transmitting the electronic signature data to the automated information providing means, obtaining a certificate, and performing user authentication.

Whereas, D1 discloses methods of crediting an account and has particular but not exclusive application to pre-paid mobile telephone accounts. The crediting process comprises two stages including a request and a payment stage. D2 discloses a communication system between a mobile terminal and a service terminal by using an infrared radiation method. The mobile terminal decrypts the server certificate by using the public key of the IP server. The mobile terminal performs communication of particular data after checking whether the service terminal is authorized. D3 discloses a method and system to route object exchanges beyond clients and object exchange(OBEX) servers in close proximity with one another. It provides the ability to route OBEX communications across a communication network such as the internet.

It is apparent that no inventive steps are required for a person having an ordinary skill in the art to combine D1 and D2 to arrive at the present invention as claimed in Claims 1 and 7. And it is apparent that no inventive steps are required for a person having an ordinary skill in the art to combine D1 and D2 and D3 to arrive at the present invention as claimed in Claim 6. Therefore, Claims 1, 6, 7 lack an inventive step(PCT Article 33(3)).

4. Industrial Applicability (IA)

Claims 1-10 have industrial applicability under PCT Article 33(4), because the subject matter claimed can be made or used in industry.